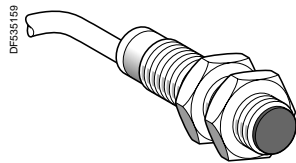
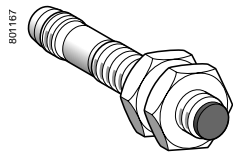


# Inductive proximity sensors

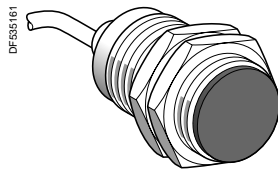
Osiprox® Application, food and beverage processing series  
Cylindrical, plastic, non flush mountable  
Three-wire, d.c. supply, solid-state output



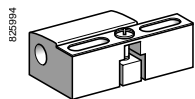
XS2 ●●AA●●L2



XS2 ●●AA●●M12



XS2 30AA●●L2



XSZ B●●●

## Ø 12, threaded M12 x 1

Sensing dist. (Sn) mm	Function	Output	Connection	Reference	Weight kg
7	NO	PNP	Pre-cabled (L = 2 m) (1)	<b>XS2 12AAPAL2</b>	0.065
			M12 connector	<b>XS2 12AAPAM12</b>	0.030
		NPN	Pre-cabled (L = 2 m) (1)	<b>XS2 12AANAL2</b>	0.065
			M12 connector	<b>XS2 12AANAM12</b>	0.030

## Ø 18, threaded M18 x 1

Sensing dist. (Sn) mm	Function	Output	Connection	Reference	Weight kg
12	NO	PNP	Pre-cabled (L = 2 m) (1)	<b>XS2 18AAPAL2</b>	0.100
			M12 connector	<b>XS2 18AAPAM12</b>	0.040
		NPN	Pre-cabled (L = 2 m) (1)	<b>XS2 18AANAL2</b>	0.100
			M12 connector	<b>XS2 18AANAM12</b>	0.040

## Ø 30, threaded M30 x 1.5

Sensing dist. (Sn) mm	Function	Output	Connection	Reference	Weight kg
22	NO	PNP	Pre-cabled (L = 2 m) (1)	<b>XS2 30AAPAL2</b>	0.140
			M12 connector	<b>XS2 30AAPAM12</b>	0.080
		NPN	Pre-cabled (L = 2 m) (1)	<b>XS2 30AANAL2</b>	0.140
			M12 connector	<b>XS2 30AANAM12</b>	0.080

## Accessories (2)

Description		Reference	Weight kg
Fixing clamps	Ø 12	<b>XSZ B112</b>	0.006
	Ø 18	<b>XSZ B118</b>	0.010
	Ø 30	<b>XSZ B130</b>	0.020

## Connecting cables

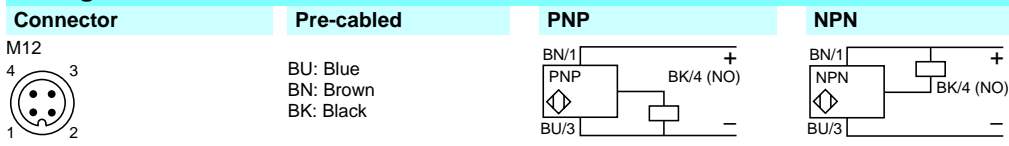
Description	Type	Cable length m	Reference	Weight kg
Pre-wired M12 connectors Female, 4-pin, stainless steel clamping ring	Straight	2	<b>XZC PA1141L2</b>	0.090
		5	<b>XZC PA1141L5</b>	0.190
		10	<b>XZC PA1141L10</b>	0.370
	Elbowed	2	<b>XZC PA1241L2</b>	0.090
		5	<b>XZC PA1241L5</b>	0.190
		10	<b>XZC PA1241L10</b>	0.370
M12 jumper cable Male, 3-pin, stainless steel clamping ring	Straight	2	<b>XZC RA151140A2</b>	0.090
		5	<b>XZC RA151140A5</b>	0.190

(1) For a 5 m long cable replace L2 by L5; for a 10 m long cable replace L2 by L10.  
Example: **XS2 12AAPAL2** becomes **XS2 12AAPAL5** with a 5 m long cable.

(2) For further information, see page 37317/2.

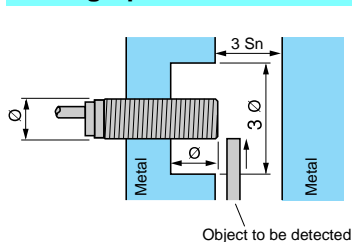
Characteristics		XS2 ●●AA●●M12	XS2 ●●AA●●L2
Sensor type		XS2 ●●AA●●M12	
Product certifications/approvals		UL, CSA, C €	
Connection	Connector	M12	–
	Pre-cabled	–	Length: 2 m
Operating zone	∅ 12	mm	0...5.6
	∅ 18	mm	0...9.6
	∅ 30	mm	0...17.6
Differential travel	%	1...15 of real sensing distance (Sr)	
Degree of protection	Conforming to IEC 60529	IP 67	IP 68, double insulation □
	DIN 40050	IP 69 K	
Storage temperature	°C	- 40...+ 85	
Operating temperature	°C	- 25...+ 85	
Materials	Case	PPS	
	Cable	–	PvR and 3 x 0.34 mm <sup>2</sup>
Vibration resistance	Conforming to IEC 60068-2-6	25 gn, amplitude ± 2 mm (f = 10 to 55 Hz)	
Shock resistance	Conforming to IEC 60068-2-27	50 gn, duration 11 ms	
Output state indication		Yellow LED: annular	
Rated supply voltage		V	≐ 12...48 for T - 25...+ 70 °C
		V	≐ 12...24 for T + 70...+ 85 °C
Voltage limits (including ripple)		V	≐ 10...58 for T - 25...+ 70 °C
		V	≐ 10...36 for T + 70...+ 85 °C
Switching capacity		mA	≐ 200 with overload and short-circuit protection
Voltage drop, closed state		V	≐ 2
Current consumption, no-load		mA	≐ 10
Maximum switching frequency	XS2 12AA●●●●	Hz	2500
	XS2 18AA●●●●	Hz	1000
	XS2 30AA●●●●	Hz	500
Delays	First-up	ms	≐ 10
	Response	ms	≐ 0.2 ∅12, ≐ 0.3 ∅18, ≐ 0.6 ∅30
	Recovery	ms	≐ 0.2 ∅12, ≐ 0.7 ∅18, ≐ 1.4 ∅30

## Wiring schemes



See connection on page 30210/3.

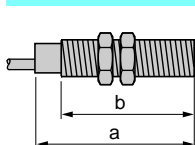
## Setting-up



### Minimum mounting distances (mm)

	Side by side	Face to face	Facing a metal object
∅ 12	e ≥ 48	e ≥ 84	e ≥ 21
∅ 18	e ≥ 72	e ≥ 144	e ≥ 36
∅ 30	e ≥ 120	e ≥ 264	e ≥ 66

## Dimensions



XS2	Pre-cabled (mm)		Connector (mm)	
	a	b	a	b
∅ 12	50	42	61	43
∅ 18	60	51	70	52
∅ 30	60	51	70	52